

Datasheet: MCA1571

Description:	MOUSE ANTI HUMAN THYROID STIMULATING HORMONE RECEPTOR
Specificity:	THYROID STIMULATING HORMONE RECEPTOR
Other names:	THYROTROPIN RECEPTOR
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	4C1
Isotype:	IgG2a
Quantity:	0.2 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/100 - 1/1000
Immunohistology - Frozen	▪			
Immunohistology - Paraffin	▪			1/1000 - 1/2000
ELISA		▪		
Immunoprecipitation	▪			
Western Blotting	▪			1/1000

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	External domain of human TSH receptor.

**External Database
Links**

UniProt:

[P16473](#) [Related reagents](#)

Entrez Gene:

[7253](#) TSHR [Related reagents](#)

Synonyms

LGR3

Fusion Partners

Spleen cells from immunized BALB/c mice were fused with cells of the NS1/Ag4.1 myeloma cell line.

Specificity

Mouse anti Human thyroid stimulating hormone receptor, clone 4C1 recognizes the human thyroid stimulating hormone receptor (hTSHR), otherwise known as the thyrotropin receptor. Mouse anti Human thyroid stimulating hormone receptor, clone 4C1 binds to an extracellular domain of hTSHR.

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

Immunohistology

This product does not require protein digestion pre-treatment of paraffin sections. This product does not require antigen retrieval using heat treatment prior to staining of paraffin sections.

**Histology Positive
Control Tissue**

Thyroid gland

References

1. Suh, J.M. *et al.* (2003) Regulation of the phosphatidylinositol 3-kinase, Akt/protein kinase B, FRAP/mammalian target of rapamycin, and ribosomal S6 kinase 1 signaling pathways by thyroid-stimulating hormone (TSH) and stimulating type TSH receptor antibodies in the thyroid gland. [J Biol Chem. 278 \(24\): 21960-71.](#)
2. Kleinau, G. *et al.* (2011) From Molecular Details of the Interplay between Transmembrane Helices of the Thyrotropin Receptor to General Aspects of Signal Transduction in Family A G-protein-coupled Receptors (GPCRs). [J Biol Chem. 286: 25859-71.](#)
3. (0) Human Protein Atlas: CAB000473 Human Protein Atlas: CAB000473
4. Shepherd PS,*et al.* (1999) Identification of an important thyrotrophin binding site on the human thyrotrophin receptor using monoclonal antibodies. [Mol Cell Endocrinol.149:197-206.](#)

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

**Health And Safety
Information**

Material Safety Datasheet documentation #10040 available at:
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight@488 , DyLight@549 , DyLight@649 , DyLight@680 , DyLight@800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight@800
Goat Anti Mouse IgG (STAR70...)	FITC
Human Anti Mouse IgG2a (HCA037...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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Printed on 05 May 2018

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